



State of Ohio Environmental Protection Agency
Southwest District Office
7 East Fourth Street
Dayton, Ohio 45402-2086
(513) 449-6357

99823

No. 0000001



June 22, 1988

RE: SKINNER LANDFILL
BUTLER COUNTY
CERCLA CORRESPONDENCE FILE

Richard F. Celeste
Governor

Mr. Gregg Kulma, Chief
Ohio/Minnesota Unit
Site Management Section (5HR-11)
USEPA Region 5
230 S. Dearborn Street
Chicago, Illinois 60604

Dear Mr. Kulma:

With the departure of Mr. Gene Wong from USEPA and from his role as remedial project manager for the Skinner Landfill Superfund Site in Butler County, Ohio, I am taking this opportunity to submit to you Ohio EPA review comments on the April, 1988 Skinner Landfill Phase I Remedial Investigation Report. I am utterly dismayed and disappointed with the continued poor quality of the report as this third draft is, in some ways, not much better than the first.

The reformatting of the report has made it difficult to follow in many cases. For example, having a single chapter for discussion of all Phase I field activities followed with the results and interpretations, each discussed as individual sections, gives the report a general lack of continuity. The report would be much easier to read and digest if each activity and the procedures followed for that particular activity were included in the same chapter as the presentation and discussion of the results.

It is also disturbing that several of Ohio EPA's past comments and concerns were "addressed" by simply deleting a table or a particular statement in the report to avoid having to properly address the concern. An example of this is the deletion of Table 3-5 from the November, 1987 report to the April, 1988 report.

Ohio EPA also had to ask in two previous comment letters (May 1, 1987 and February 18, 1988 letters to Gene Wong) if the analytical results reported for ground water samples were for total or dissolved metals, since neither the first nor the second draft report made any mention of this. It was finally noted in the current and third draft report that of the ground water samples obtained, some were field filtered and some were left unfiltered for comparative purposes. Previous data presentations made no distinctions and the results were merely lumped together in a single table.

EXHIBIT 6

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Further testament to the poor quality of the report as well as previous site activities is that a thorough private well survey was apparently never conducted at the site. Well sampling techniques were poor in that stagnant water was, in many instances, not purged from the wells prior to sampling. It is also mentioned in the report (although it took three drafts before it was finally mentioned) that an on-site well owned by the Skinners is used by employees and truck drivers for drinking water. How could it be that this well was never sampled as part of Phase I activities? In addition, no well logs or construction details for any of the private wells that were sampled have been included in the report despite requests in two previous Ohio EPA comment letters that this information be included. ✓

Laboratory QA/QC for Phase I sampling rounds was abominable. Because of the widespread presence of toluene, methylene chloride and acetone in laboratory and field blanks, it is difficult if not impossible to determine if these compounds are present in site media. This is particularly true with the ground water samples. Clearly, a third complete round of sampling of all existing monitoring wells is warranted. The Skinner well and any other on-site private well must be sampled as part of this effort. Analysis should consist of complete HSL organics and inorganics including pesticides and PCB's.

I am also very concerned with the lack of notification given by USEPA to Ohio EPA with respect to the startup and completion by the contractor of several phase II RI activities at the site. I have in the past discussed with Gene Wong some general items which Ohio EPA felt needed to be done as part of phase II RI activities at the site and these were outlined in previous Ohio EPA comment letters (April 13, 1987; May 1, 1987; and February 18, 1988). At no time were specific details on any proposed phase II activity discussed between Ohio EPA and USEPA. In fact, I have requested on at least two occasions (see my April 13, 1987 and February 18, 1988 letters to Gene Wong) that a draft phase II RI work plan, QAPP, and sampling and analysis plan be sent to Ohio EPA for our review, input and concurrence. To date, we have not received any of these and it is doubtful that we will support any work done at the site without being given the opportunity to review these documents. ✓

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Additional, page-specific comments are provided below:

1. Page 1, fourth paragraph: The Skinner Landfill is bordered on the east by a Conrail right-of-way and on the west by Cincinnati-Dayton Road.
2. Page 111, Recommendations for Further Field Investigation, subparagraph #1: Waste characterization of the buried lagoon must include sampling of subsurface soils. With all the material the Skinners have placed over the lagoon, it makes little sense to restrict sampling to surface soils. What happened to the 30 soil borings that were proposed in the November, 1987 RI report as part of phase II RI activities?
3. Page 1-1, Section 1.0, first paragraph: See comment #1 above.
4. Section 1.0, general comment: Why was the section on the history of site waste activities removed from this revised RI report? Reference of this material as being in the work plan should not be made. Site history is perfectly relevant to and should be included in the RI report. In addition, the date of the work plan should be provided if it is referenced.
5. Page 2-2, Table 2-1: The footnote does not make any sense nor does it clarify the issue of which residential wells were sampled and which were not. As it stands, the footnote suggests that only two out of ten residential wells were sampled, with at least five being removed from consideration because they were inoperable or contained stagnant water. (Yet the footnote goes on to say that two of these five wells were sampled anyway. Very confusing.)
6. Page 2-8, Section 2.3: The entire page was reproduced poorly and is not fully readable or understandable.
7. Page 2-9, Section 2.5, first partial paragraph: The on-site ponds which were sampled are near the western edge of the site.
8. Page 2-13, Figure 2-5: The map should be reproduced so the exact location of sample SS-11 is shown.
9. Figure 3-1: Seismic lines G, I and J are not identified.

Also, the symbol for the line profile was omitted from the legend.

10. Page 3-13, Section 3.1.2.2, first partial paragraph: From Figure 3-6, the boundary of the anomalous area appears to range from 0-N to 200-N and from 50-E to 100-W.
11. Page 3-13, Section 3.1.2.2, East Fork, first paragraph: As stated in previous OEPA comments (2/18/88), Figure 3-9 shows vertical dipole conductivities contoured over a range of 16 to 52 mmhos/m. In the second paragraph, according to Figures 3-8 and 3-9, the ridge of elevated conductivity values appears to trend NE to SW, not NW to SE.
12. Page 3-26, Table 3-2: Many of the anomalies listed in the table are not shown on the individual geophysical survey plots. It would make more sense and be easier to use this table if the coordinates of the various anomalies were given as 100-N or 100-S and 100-E or 100-W. In other words, is the anomaly listed with a 100 N-S and 100 E-W coordinate located at: 100-N, 100-W? 100-S, 100-E? 100-N, 100-E? 100-S, 100-W?
13. Page 4-1, Section 4.1, first paragraph: East Fork flows from east to west, not west to east.
14. Page 4-6, Figure 4-3: The asterisked note in the legend should be removed from this figure since it apparently no longer applies to well GW-14 as originally presented in the November, 1987 RI report.
15. Page 4-9, Figure 4-6: Several seismic survey bedrock elevation data points were left off of this map as compared to the November, 1987 report. Why was this done? For example, the 636.4 foot data point was left off of this map. Without this data point, there is no basis for drawing a closed 630 foot contour in the SW portion of the site.
16. Figures 4-1, 4-6, 4-7, and 4-8: While it was helpful to add to these maps areas of waste disposal and storage, the site property boundaries should also be added to distinguish between on-site and off-site areas. This is especially important for determining any possible future off-site releases of contaminants and for illustrating

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that contaminants thus far have only been found on-site.

17. Page 4-10, Section 4.3, last bullet: According to Figures 4-7 and 4-8, ground water that flows east from the eastern divide does not flow parallel to East Fork Mill Creek. In addition to discharging to East Fork, ground water may also flow beneath the creek.
18. Page 4-12, Figure 4-7: This map is out of place and should be reversed with Figure 4-8. In addition, the map in Figure 4-7 is still incorrectly contoured in the area where the 730 foot contour line crosses northeast to southwest along the western portion of the metal storage area. Slopes (be they topographic or water table) cannot change on a contour line. It is suggested that the writer of this report refer to Figure 4-8 in the area of well GW-14 and the metal storage area to see how a properly contoured map should look. Well GW-13 was also left off of this map. Also, a water level elevation for well GW-14 is given in Table 4-1 as 731.15, yet Figure 4-7 gives an elevation of 731.55. Which is correct?
19. Page 4-13, Figure 4-8: Well GW-13 was left off of this map. According to Table 3-5 in the November, 1987 draft RI report, Figure 4-8 represents water table elevations from a period from May 13-23, 1986, not May 22-23, 1986. This comment was made in my February 18, 1988 letter to Gene Wong (comment #19), yet has still not been addressed.
20. Page 4-16, Table 4-2: The footnote referencing wells GW-6 and GW-13 was omitted.
21. Page 4-17, Section 4.3, last paragraph: Equation #1 has not been identified. Is equation #1 the equation at the top of page 4-17?
22. Page 5-1, Section 5.0, first paragraph: The date of both the Quality Assurance Project Plan and Sampling and Analysis Plan should be provided. Why was Table 3-5 from the November, 1987 draft report which summarized well construction and sampling information removed from the April, 1988 draft report? This information must be included.
23. Page 5-2, Section 5.0, fourth bullet: Duplicate sample results should not be averaged in with the regular sample

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results unless the results are in close agreement with each other.

24. Page 5-3, Section 5.1.1, second and third paragraphs: Units of specific conductance are stated as being both umhos/cm and umhos/sec, yet Table 5-1 gives it in units of umhos/sec. Which is correct?
25. Page 5-3, Section 5.1.1, last paragraph: The last sentence in this paragraph must be deleted as it is not correct. The secondary drinking water standards are maximum contaminant levels for these specific parameters. The report writer is referred to 40 CFR 143.3 for further clarification.
26. Page 5-6, Section 5.1.2, first paragraph: Methylene chloride, acetone, and toluene were detected in investigative samples at two to three orders of magnitude above their concentrations in field blanks and lab blanks. How can these results then be dismissed as not being representative of on-site groundwater chemistry?
27. Page 5-6, Section 5.1.2, third paragraph: It is hoped that in the future, better care will be taken to completely purge any residual contaminants from analytical instruments so data obtained will be of higher quality and more useful.
28. Page 5-7, Table 5-3: The Round 1 ground water sample from Well GW-15 had 86 ppb benzene. How can this well be considered to represent background conditions?
29. Pages 5-8 and 5-9, Figure 5-1 and Table 5-4: Both the figure and the table should list the identical compounds. For example, Figure 5-1 does not list 1,1-Dichloroethane, yet Table 5-4 does. Figure 5-1 lists chloroethane, yet Table 5-4 does not. Are the analytical results listed as trans-1,2-Dichloroethylene really this compound or could this also be cis-1,2-Dichloroethylene? Many laboratories do not distinguish between the two and merely report them both as trans-1,2-dichlorethylene. The SWDA MCL for vinyl chloride is 2ppb, not 1 ppb.

Figure 5-1 should also differentiate between each sampling round by having one map of round 1 results and one map showing round 2 results. Exactly what is meant by a RCRA Maximum Concentration Limit?

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30. Page 5-10, Section 5.1.3, first paragraph: If tetrachloroethene was detected in a field blank (well GW-22 at an estimated concentration of 1 ppb), why are the results for this compound considered valid for wells GW-09 and GW-17? For that matter, why does the presence of methylene chloride and tetrachloroethene in field blanks have any bearing on the validation of BNA results?
31. Page 5-10, Section 5.1.3, second paragraph: Total semi-volatiles detected in round 1 ground water samples ranged from 0 to 180 ppb. Napthalene was also detected in well GW-18 in addition to well GW-22. Both of these concentrations were estimated.
32. Page 5-10, Section 5.1.3, third paragraph: Given the statement made in the fourth sentence, one could also make the same assertion about the presence of acetone, toluene, and methylene chloride in the ground water samples. Let's be consistent with our interpretations here! (Ohio EPA believes toluene, acetone, and methylene chloride may in fact be present in the ground water at the site and is not just the result of laboratory and/or field blank problems. Clearly, a third round of ground water sampling of all existing monitor wells is necessary). The last sentence in this paragraph should mention the other semi-volatile compounds which were detected.
33. Page 5-11, Table 5-5: Because pentachlorophenol (in a duplicate sample) and benzene were detected in well GW-15, this well can hardly be considered a background well.
34. Section 5, General Comment: Maps similar to Figure 5-1 should be provided in the report to show the areal distribution of BNA's for each sampling round.
35. Page 5-12, Table 5-6: The units of concentration are not given for the compounds listed in this table. What is a RCRA Maximum Concentration Limit?
36. Page 5-13: With regard to pesticides, PCB's and inorganic compounds in ground water samples, maps similar to Figure 5-1 should be provided.
37. Page 5-14, Table 5-7: For previously mentioned reasons,

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38. Page 5-15, Table 5-8: Again, well GW-15 cannot be considered as a background well.
39. Page 5-16, Table 5-9: What is meant by a RCRA Maximum Concentration Limit? Where can these limits be found? For chromium, how can the MCLG be greater than the MCL?
40. Page 5-17, Section 5.2, first paragraph: A reference should be made to Appendix A5.0 for additional information on residential well sampling.
41. Page 5-19, Table 5-10: It is still not clear as to whether any household treatment systems such as water softeners were by-passed before residential well samples were obtained. The report should also provide information on well construction. Well logs should be obtained from the Ohio Department of Natural Resources, Division of Water and included in the report. These comments have been made previously and have still not been addressed.
42. Page 5-23, Table 5-14: Included in this table should be the analytical results for alkalinity, chlorides, nitrates, and sulfates as they were given in Table 3-14 of the November, 1987 draft RI report. Why were these results not included in the April, 1988 draft?
43. Page 5-25, Table 5-15: Explain why pH and specific conductivity were not recorded for surface samples SW-03, 04, and 05. This question has been raised in two previous OEPA comment letters, yet still has not been addressed.
44. Page 5-26, Section 5.3.2, second paragraph: Reference to trans 1,2-dichloroethane should be to trans 1,2-dichloroethene. See comment #29 regarding the identification of cis and trans isomers of dichloroethene. It is difficult to imagine such widespread laboratory contamination of both laboratory and field blanks with acetone, toluene, and methylene chloride throughout the various sampled media. It appears that the one conclusion that can be made from all of this is that there is absolutely no way to confirm whether the field blanks are partially or wholly indicative of poor field decontamination procedures or whether they were contaminated by the

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analytical laboratory. Does any data exist that is truly representative of either surface water or ground water quality with respect to acetone, toluene, or methylene chloride?

45. Page 5-27, Table 5-16: Since chloroethane was found at 40 ppb at location SW-12 yet was not detected in upstream background sample SW-04, why then under the column "Exceeds Background Concentration" is it considered as "not established?" Also, trans 1,2-dichloroethane should be either cis or trans 1,2-dichloroethene. It is inappropriate to compare the surface water results to maximum contaminant levels for drinking water. Results should be compared to Ohio ambient water quality standards and criteria for each stream.
46. Page 5-28, Section 5.3.2, first paragraph: A background surface water and sediment sample must be collected for Skinner Creek. MCLG denotes Maximum Contaminant Level Goal.
47. Page 5-28, Section 5.3.2, second paragraph: Acetone was detected in several wells whose results were not flagged with a "B". (See Table F7.) Does this mean that acetone was not a result of laboratory contamination and was really present in the samples?
48. Page 5-28, Section 5.3.2, third paragraph: The concentration of 4-methyl-2-pentanone in site sediment samples ranged from 1.1 ppm to 4.9 ppm.
49. Page 5-28, Section 5.3.2, last paragraph: A background upstream sample of surface water and sediment must be collected in Skinner Creek. Results of surface water and sediment samples from Skinner Creek cannot be compared to SW-04 or SD-04 in East Fork as a measure of determining landfill impacts on this stream.
50. Page 5-29, Table 5-17: The units given in this table for sediment samples are in mg/kg (ppm), yet the units given in Table F7 are in ug/kg (ppb). Which is correct?
51. Page 5-31, Section 5.3.5: This section should reference Appendix Table F13.
52. Page 5-32, Table 5-18: This table (as well as all of the tables for surface water results) should also list the ambient water quality standards and criteria for both

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East Fork and Skinner Creeks. Surface water data for Skinner Creek must be compared to an upstream background sample collected from Skinner Creek and not from East Fork.

53. Page 5-33, Table 5-19: It is wholly inappropriate to compare sediment sample results from Skinner Creek, the ponds, and East Fork of Mill Creek to either "typical" U.S. soil concentration ranges and averages or to a single surface soil sample collected off-site as background. As previously stated, stream sediment and surface water samples can only be compared to samples obtained within the individual stream itself and only those that are collected upstream of the site would represent background for the individual stream.
54. Page 5-34, Section 5.4.2, second paragraph: Reference to the compound fluoromethene, should be to fluoranthene.
55. Page 5-34, Section 5.4.2, third paragraph: The reason given for the occurrence of bis (2-ethyl-hexyl) phthalate in surface soil sample SS06-02 is absolute nonsense. Standard sampling protocol calls for sampling soils and sediments with a stainless steel scoop. No competent person would use a plastic scoop for collecting a sample of this type. Doesn't the report writer know how the samples were collected? (If he doesn't, he is referred to the Appendix, Section A4.0.) Bis (2-ethyl-hexyl) phthalate is present in several of the surface soil samples and is a result of site operations, poor sampling/decontamination techniques, poor laboratory techniques, or a combination of all three.
56. Page 5-38, Table 5-22: See comment #53, as it also applies to surface soil sample results. An adequate number of properly located surface soil samples must be collected from each discrete depth and used as background against which all other soil samples should be compared. Collection of a sufficient number of background surface soil samples must be collected and analyzed for CLP list organics and inorganics as part of Phase II RI activities.
57. Page 6-4, Section 6.4, first paragraph: It is stated in this paragraph that Table 6-1 is a comparison of the macroinvertebrates collected from East Fork Mill Creek and Skinner Creek. Yet, no data from Skinner Creek

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appears to be listed in Table 6-1 and its heading states that the table is for macroinvertebrates collected only from East Fork. Please clarify where on this table the Skinner Creek data is listed and rename the table appropriately.

58. Page 6-8, Table 6-2: In the November, 1987 draft report, the number of organisms was listed in this table as being the number per square meter. Now, the April, 1988 draft RI report lists it as the number of organisms per square foot, a considerably higher number when one considers the change in units. Which is correct? This table should also list the station number as given in Figure 6-1 for clarity.
59. Page 7-1, Section 7.1: Sufficient soil, surface water and stream sediment samples will need to be obtained to adequately determine background conditions before a risk assessment can be made.
60. Page 7-1, Section 7.2, last paragraph: The presence of inorganic and organic constituents in site ground water and soils is also a result of dumping or spilling of liquid wastes in other areas besides the old lagoon.
61. Page 7-2, Table 7-1: This table is incomplete. Contaminants of concern must be identified for surface water and stream and pond sediments. Cyanide and arsenic and PCB's should also be listed under soils in the table.
62. Page 7-3, Section 7.2, second full paragraph: The last sentence in this paragraph refers to leachate wells. Ohio EPA was not aware that leachate wells were installed at the site. Please clarify this. Also, since naphthalene was found on site, it should be included in Table 7-1.
63. Page 7-5, Section 7.3.1, second paragraph: Why was the well used by Skinner employees and truck drivers not sampled as part of the residential well sampling activities? All on-site and nearby off-site wells must be identified as part of phase II RI activities. This means that a thorough and complete well survey must be conducted. Phase II activities must include the sampling of the Skinner well and any other well that may be potentially affected by the site.

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64. Pages 7-6 and 7-7: The order in which Figure 7-1 and Table 7-2 appear in the report should be reversed.
65. Page 8-2, Section 8.0, third bullet: This is not a completely accurate statement. Several other wells screened either fully or partially into bedrock (GW-11, GW-12, GW-15 and GW-18) have shown groundwater quality degradation suggesting bedrock contamination is more widespread than what is stated here.
66. Page 8-2, Section 8.0, fifth bullet: If representative background concentrations for East Fork and Skinner Creek surface waters and sediments have not been established (which they have not), why then does the report use surface water, sediments, and surface soils collected at locations SW-04, SD-04, and SS-13-01 as background to compare all other samples against?
67. Page 9-1, Section 9.0, recommendation #1: Lagoon waste characterization should include at least 10 boring locations within the lagoon with at least three composite samples collected per borehole for full CLP analysis. Samples for VOC analysis should not be composited.
68. Page 9-2, Section 9.0, recommendation #6: Additional pond sediment samples must also be analyzed for HSL base/neutral and acid extractable compounds.
69. Page 9-2, Section 9.0, recommendation #10: All new monitor wells which are installed as part of phase II activities should be constructed of stainless steel or Teflon.
70. Page 9-3, last paragraph: It is very disturbing that Ohio EPA was not informed that work on Tasks 2 through 7 (with the exception of Task 2) was to begin or that it has already been completed. The agency was not provided an opportunity to review or have input into a work plan, QAPP, or sampling and analysis plan for these tasks despite previous requests made to USEPA for this review and input.
71. Table A5-2: The units of specific conductance appear to be incorrect. Consistent with previous data presented elsewhere in the report, the units should be umhos/cm rather than umhos/in.

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72. Section A6.0, last paragraph: Table 3-5 was removed from this draft report and as such is not included in Section 3.0. It should not have been deleted. Also, contrary to what is stated in the third paragraph here, Table 3-5 (November, 1987 draft report) shows that well GW-10 was purged prior to its being sampled in the first round.
73. Appendix C: The graphs in this appendix are largely unreadable.
74. Table F2 erroneously lists methylene chloride and tetrachloroethene as semi-volatile compounds.
75. Table F4: It is not clear what the difference is between samples designated as GW08-01D, GW08-DP, and GW08-DPD.
76. General Comment: Most of the site maps (Figures 1-1, 1-3, 2-3, 2-4, 2-5, 2-6, 3-3, 3-4, 3-7, 4-1, 4-6, 4-7, 4-8, 5-1, 5-2, 6-1, and 7-1) are of poor reproductive quality. Site maps which show sampling locations should be fold-out maps as they were in the November, 1987 draft report.

In closing, I again suggest that a meeting be held between USEPA, Ohio EPA, and Weston to discuss our continuing concerns and to discuss the course of phase II remedial investigation activities at this site. I would also appreciate your contacting me to inform me as to who the new remedial project manager will be for the site or having that individual contact me if one has already been assigned.

I would also like to request copies of the final phase I RI work plan (volume 2) as well as the QAPP and the sampling and analysis plan. Ohio EPA has never received final copies (nor draft copies in some instances) of any of these plans.

Sincerely,

Michael J. Starkey

Michael J. Starkey
Project Coordinator
Corrective Actions Group

cc: Kathy Davidson, OCA, CO
Kathi Duddy, DGW, SWDO
R. Michael Bort, PE, Weston